



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

| | | | | |
|-----------------|-------------|----------------------|---------------------|------------------|
| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
| 09/707,079 | 11/06/2000 | David Hose | 42365-00380 | 9121 |

7590 06/21/2002

Kent A. Fischmann, Esq.
3151 S. Vaughn Way
Suite 411
Aurora, CO 80014

EXAMINER

MOORE, JAMES K

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2682

DATE MAILED: 06/21/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

| | | | |
|-----------------|---------------|--------------|----------------------|
| Application No. | 09/707,079 | Applicant(s) | HOSE, DAVID <i>W</i> |
| Examiner | James K Moore | Art Unit | 2682 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 26 March 2002.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 40-75 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 40-75 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. _____.

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

| | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Terminal Disclaimer

1. The terminal disclaimers filed on March 26, 2002 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of any patent granted on Application Numbers 09/119,493 and 09/411,446 have been reviewed and is accepted. The terminal disclaimers have been recorded.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. **Claim 69** is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification discloses how the prioritization criterion is used for prioritizing and outputting the service provider information, but does not disclose how the prioritization criterion is used for converting the location information into a second form.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. **Claims 62, 63, and 66** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 62 recites the limitation "the mobile unit" in line 13. There is insufficient antecedent basis for this limitation in the claim.

Claim 66 depends on **claim 62**.

Claim 63 recites the limitations "said first location finding system", "said second location information", and "said second location finding system" in lines 2 and 3. There is insufficient antecedent basis for these limitations in the claim.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

7. **Claims 40, 42, 45-55, 67, and 70-75** are rejected under 35 U.S.C. 102(e) as being anticipated by Brohoff (U.S. Patent No. 6,108,533).

Regarding **claim 40**, Brohoff discloses a method for providing location based services in a wireless network (10). The method comprises: receiving, on a network platform (MSC 18) in communication with a subscriber using a mobile unit (19) via an air interface, a service request (inquiry 31) requesting information regarding the location based services; obtaining on the network platform (MSC 18) location information (geographic coordinates) regarding a location of the mobile unit (19) determined using a network assisted location finding technology; identifying, on the network platform, first and second service providers (service stations) and associated first and second service provider information (name, directions, special offers) based upon the determined location of the mobile unit (19); storing prioritization information (location) relating to a priority for presenting service provider information to a subscriber; based upon the stored prioritization information, prioritizing the first and second service provider information; and outputting the first and second provider information to the mobile unit based upon the prioritizing (the information is presented in an order in which the closest service providers are listed first). See Figures 1 and 5; col. 4, line 49 through col. 5, line 10; and col. 6, lines 9-63. The location finding technology provides location information regarding the mobile unit (19) based in part on a position of the mobile unit (19) in relation to a known location of a stationary ground based network device (base station) in communication with the mobile unit (using triangulation). See col. 4, lines 30-39.

Regarding **claim 67**, Brohoff discloses a method for providing location based services in a wireless network (10). The method comprises: receiving, on a network platform (MSC 18) in communication with a subscriber using a mobile unit (19) via an air interface, a service request (inquiry 31) requesting information regarding the location based services; obtaining on the network platform (MSC 18) location information (geographic coordinates) regarding a location of the mobile unit (19) determined using a network assisted location finding technology; converting the location information (geographic coordinates) into a second form (geographic area); identifying, on the network platform, utilizing the converted location information in the second form, a first service provider (service station) and associated first service provider information (name, directions, special offers) based upon the determined location of the mobile unit (19); and outputting the first service provider information to the mobile unit. See Figures 1 and 5; col. 4, line 49 through col. 5, line 10; and col. 6, lines 9-63. The location finding technology provides location information regarding the mobile unit (19) based in part on a position of the mobile unit (19) in relation to a known location of a stationary ground based network device (base station) in communication with the mobile unit (using triangulation). See col. 4, lines 30-39.

Regarding **claim 42**, Brohoff discloses all of the limitations of **claim 40**, and also discloses that the prioritization information is based on proximity. See col. 6, lines 9-63.

Regarding **claim 45**, Brohoff discloses all of the limitations of **claim 40**, and also discloses that the network assisted location finding technology utilizes cell/sector (base

station) technology to analyze signals communicated between the network platform (MSC 18) and the mobile unit (19). See col. 4, lines 30-39.

Regarding **claim 46**, Brohoff discloses all of the limitations of **claim 40**, and also discloses that the location information regarding the mobile unit (19) is received on the network platform (18) and originates in part from location equipment (at the base station) separate from the mobile unit (19). See col. 4, lines 30-39.

Regarding **claim 47**, Brohoff discloses all of the limitations of **claim 40**, and also discloses that the location information is received in a first form (geographic coordinates) relating to a topology of the network (location of base stations), that the first form location information is converted into a second form (geographic area), and that the converted location information is used to locate the first and second service providers. See col. 6, lines 50-63.

Regarding **claims 48-50 and 70-72**, Brohoff discloses all of the limitations of **claims 40 and 67**, and also discloses that a local condition (road information) and a service provider location (service station location) is obtained relative to the location of the mobile unit (19). See col. 6, lines 50-63 and col. 7, lines 13-24.

Regarding **claim 51**, Brohoff discloses all of the limitations of **claim 40**, and also discloses that the information may be outputted as an audio signal (voice message) transmitted to the mobile unit. See col. 4, lines 50-60.

Regarding **claim 52**, Brohoff discloses all of the limitations of **claim 40**, and also discloses that the information may be outputted as display information (text message) transmitted to the mobile unit. See col. 4, lines 50-60.

Regarding **claims 53 and 73**, Brohoff discloses all of the limitations of **claims 40 and 67**, and also discloses that the priority information (location) is stored on the network platform (GDB 21). See Figure 1.

Regarding **claims 54 and 74**, Brohoff discloses all of the limitations of **claims 40 and 67**, and also discloses that the mobile unit (19) comprises a standard mobile telephone free from any integrated equipment dedicated to location determination, that the technology identifies the location of the mobile unit (19) based on RF transmissions from the mobile unit, and that the location based services are provided to the telephone from the integrated location determination equipment. See col. 4, lines 30-39.

Regarding **claims 55 and 75**, Brohoff discloses all of the limitations of **claims 40 and 67**, and also discloses that the network platform comprises a mobile telephone network platform associated with a mobile telephone network switch (MSC 18) and that the service request is received by transmitting a network message to the network platform from the switch. See Figures 1 and 5; col. 4, line 49 through col. 5, line 10.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. **Claims 41, 56-61, 64, 65, and 68** are rejected under 35 U.S.C. 103(a) as being unpatentable over Brohoff in view of Karmel (U.S. Patent No. 6,353,743).

Regarding **claims 56 and 68**, Brohoff discloses a method for use in providing location based services to a communication network user in a wireless network. The method comprises: receiving, on a network platform (MSC 18) in communication with a mobile unit (19) via an air interface, a service request (inquiry 31) requesting information regarding the location based services; obtaining location information (geographic coordinates) regarding a location of the mobile unit (19) determined using a network assisted location finding technology; identifying, on the network platform, first and second service providers (service stations) and associated first and second service provider information (name, directions, special offers) based upon the determined location of the mobile unit (19). See Figures 1 and 5; col. 4, line 49 through col. 5, line 10; and col. 6, lines 9-63. The location finding technology provides location information regarding the mobile unit (19) based in part on a position of the mobile unit (19) in relation to a known location of a stationary ground based network device (base station) in communication with the mobile unit (using triangulation). See col. 4, lines 30-39.

Brohoff does not disclose that the method comprises providing the location information into a form suitable for distance determinations, determining the distance of each of the first and second service providers relative to the mobile unit, and outputting the first and second service provider information to the mobile unit in a manner that is based upon the determination of distances. However, Karmel teaches a method for providing location based services in which the distance of a service provider relative to

a mobile unit is determined, and the distance is output to the mobile unit. See col. 5, line 63 through col. 6, line 21. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Brohoff with Karmel, such that the method comprises providing the location information into a form suitable for distance determinations, determining the distance of each of the first and second service providers relative to the mobile unit, and outputting the first and second service provider information to the mobile unit in a manner that is based upon the determination of distances, in order to inform the user of his exact distance from the service providers.

Regarding **claim 57**, Brohoff in view of Karmel teaches all of the limitations of **claim 56**, and Brohoff also discloses that the network assisted location finding technology utilizes cell/sector (base station) technology to analyze signals communicated between the network platform (MSC 18) and the mobile unit (19). See col. 4, lines 30-39.

Regarding **claim 58**, Brohoff in view of Karmel teaches all of the limitations of **claim 56**, and Brohoff also discloses that the location information regarding the mobile unit (19) is received on then network platform (18) and originates in part from location equipment (at the base station) separate from the mobile unit (19). See col. 4, lines 30-39.

Regarding **claims 41 and 59**, Brohoff in view of Karmel teaches all of the limitations of **claims 40 and 56**, and Brohoff also discloses that the prioritization information relates to establishing the priority based on the proximity of particular service providers to the mobile unit. See col. 6, lines 9-63. Brohoff does not disclose

that the prioritizing comprises: providing the location information in a form suitable for distance determinations; determining a first distance between the mobile unit and the first service provider; determining a second distance between the mobile unit and the second service provider; performing a comparison of the first and the second distance; and determining a presentation of the first and second service information based upon the comparison.

Karmel teaches a method for providing location based services in a wireless network in which the proximity of service providers to a mobile unit is determined by determining the distance between the mobile unit and the service providers. See col. 5, line 63 through col. 6, line 21. This is an obviously more accurate determination of proximity than Brohoff, where the proximity of service providers to the mobile unit is defined only in terms of neighboring zones. It would therefore have been obvious to one of ordinary skill in the art at the time of the invention, to modify Brohoff's method of determining proximity in view of Karmel, such that the proximity is determined by determining distances between the mobile unit and the service providers, in order to present to the user a more accurate portrayal of its proximity to the various providers.

Regarding **claim 60**, Brohoff in view of Karmel teaches all of the limitations of **claim 56**, and Brohoff also discloses that the mobile unit (19) comprises a standard mobile telephone free from any integrated equipment dedicated to location determination, that the technology identifies the location of the mobile unit (19) based on RF transmissions from the mobile unit, and that the location based services are

provided to the telephone from the integrated location determination equipment. See col. 4, lines 30-39.

Regarding **claim 61**, Brohoff in view of Karmel teaches all of the limitations of **claim 56**, and Brohoff also discloses that the network platform comprises a mobile telephone network platform associated with a mobile telephone network switch (MSC 18) and that the service request is received by transmitting a network message to the network platform from the switch. See Figures 1 and 5; col. 4, line 49 through col. 5, line 10.

Regarding **claim 64**, Brohoff in view of Karmel teaches all of the limitations of **claim 56**, and Brohoff also discloses that the determination comprises triangulation analysis. See col. 4, lines 30-39.

Regarding **claim 65**, Brohoff in view of Karmel teaches all of the limitations of **claim 56**, and Brohoff also discloses that the determination comprises calculating a point (geographic coordinates) in a polygon (triangle) analysis. See col. 4, lines 30-39.

10. **Claims 43 and 44** are rejected under 35 U.S.C. 103(a) as being unpatentable over Brohoff in view of Bolduc et al. (U.S. Patent No. 6,157,841).

Regarding **claim 43**, Brohoff discloses all of the limitations of **claim 40**, but does not disclose that the prioritization is accomplished by accessing stored subscriber defined prioritization criterion information. However, Bolduc teaches a method for providing location based services in a wireless network which comprises prioritizing service provider information based upon accessing stored subscriber defined

prioritization criterion information. See Abstract and col. 4, lines 27-33. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Brohoff with Bolduc, such that the prioritization is accomplished by accessing stored subscriber defined prioritization criterion information, so that the service provider information may be presented to the subscriber in a form that best suits his individual preferences.

Regarding **claim 44**, Brohoff in view of Bolduc teaches all of the limitations of **claim 43**, and Bolduc also discloses that the subscriber defined prioritization criterion information includes preferences of the subscriber relative to the service request. See col. 4, lines 27-33.

11. **Claims 62, 63, and 66** are rejected under 35 U.S.C. 103(a) as being unpatentable over Brohoff in view of Hillis (U.S. Patent No. 5,303,297).

Regarding **claim 62**, Brohoff discloses a method for providing location based services to a subscriber of a wireless network. Network location information is available within an area of the network based on a network assisted location finding technology. The location finding technology determines a location of a wireless transceiver (19) of the subscriber within the area of the network based in part on a relationship between the location of the wireless transceiver (19) and a known location of a fixed network structure (base station) in the area of the network (using triangulation). The method comprises: receiving first location information regarding the wireless transceiver (19) from a first location finding system (base station) for locating wireless units within the

network; determining a location of the wireless transceiver (19) by accessing a database (GDB 21) that includes the first location information from the first location finding system (base station); identifying a service provider and associated service provider information based upon the determined location of the wireless transceiver (19); and transmitting the service provider information to the wireless transceiver (19). The first location information is based on the fixed network device (base station) in communication with the mobile unit (19). The wireless transceiver (19) provides to the subscriber the service provider information based on a current location. See Figures 1 and 5; col. 4, line 30 through col. 5, line 10; and col. 6, lines 9-63.

Brohoff does not disclose that the method comprises receiving second location information regarding the wireless transceiver (19) from a second location finding system, different from the first location finding system (base station), or that the database includes the second information. However, Hillis teaches a method for providing location based services to a subscriber of a wireless network utilizing a database (location tracker 34). The method may comprise receiving first and second location information from first and second location finding systems (cellular-based system and GPS-based system) and determining a location of a wireless transceiver by accessing the database (location tracker 34) that includes the first and second location information. See col. 5, lines 7-65. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Brohoff with Hillis, such that the method comprises receiving second location information regarding the wireless transceiver (19) from a second location finding system (GPS), different from the first location finding

system (base station), and that the database includes the second information, in order to more accurately pinpoint the location of the wireless transceiver.

Regarding **claim 63**, Brohoff discloses all of the limitations of **claim 55**, but does not disclose that the location of the wireless transceiver is determined by using second location information from a second location finding system. However, Hillis teaches a method for providing location based services to a subscriber of a wireless network utilizing a database (location tracker 34). The method may comprise receiving first and second location information from first and second location finding systems (cellular-based system and GPS-based system) and determining a location of a wireless transceiver by accessing the database (location tracker 34) that includes the first and second location information. See col. 5, lines 7-65. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Brohoff with Hillis, such that the method comprises receiving second location information regarding the wireless transceiver (19) from a second location finding system (GPS), different from the first location finding system (base station), in order to more accurately pinpoint the location of the wireless transceiver.

Regarding **claim 66**, Brohoff in view of Hillis teaches all of the limitations of **claim 62**, and Brohoff also discloses that the current mobile transceiver location is obtained by selecting the first location information. See col. 6, lines 28-63.

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ken Moore, whose telephone number is (703) 308-6042. The examiner can normally be reached on Monday-Friday from 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin, can be reached at (703) 308-6739.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Ken Moore

JKM

6/14/02


VIVIAN CHIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

6/17/02